

REMARKS

Claim 3 has been objected to for insufficient antecedent basis for the limitation "body regions". Claim 3 has been amended to add clarity to this claim.

Claims 3-5 and 7-9 have been rejected under 35 U.S.C. 102(b) as being anticipated by Subbanna (U.S. Patent No. 5,789,286).

Claim 3 has been amended to recite "the buried region, the source and the drain are formed such that a depletion region is located between the buried region, the source and the drain, the depletion region defining a floating body region of the field effect transistor, and providing the sole lateral isolation for portions of the floating body region". Support for this amendment is found in the specification as originally filed at paragraph [0052] and in Figs. 6, 7A and 7B. No new matter is added.

The Examiner's rejection indicates that p-well 14 of Subbanna corresponds with the "floating body region" recited by Claim 3. However, Subbanna clearly teaches that "P-well 14 is physically and electrically isolated by shallow isolating trenches 12 bounding lateral sides of the P-well 14 and underlying buried N-well 13 bounding the lower side of P-well 14. (Emphasis added.) (Subbanna, Col. 4, lines 53-57.) Because Subbanna teaches that the shallow isolating trenches 12 provide the lateral isolation of the associated transistor, Subbanna fails to teach "the depletion region provides the sole lateral isolation for portions of the floating body region" as recited by amended Claim 3.

For these reasons, amended Claim 3 is not anticipated by Subbanna. Claims 4-5 and 7-9, which depend from Claim

3, are not anticipated by Subbanna for at least the same reasons as Claim 3.

Claims 3, 10 and 11 have been rejected under 35 U.S.C. 102(b) as being anticipated by Kenney (U.S. Patent No. 5,264,716).

As described above, amended Claim 3 recites "the depletion region ... providing the sole lateral isolation for portions of the floating body region". Kenney fails to teach the formation of a depletion region as recited by amended Claim 3.

In addition, Claim 3 is directed to "a one-transistor, floating-body (1T/FB) dynamic random access memory (DRAM) cell". In contrast, Kenney teaches a DRAM cell having both an access transistor and a capacitor. (Kenney, Col. 4, lines 32-59.) Thus, one of ordinary skill would not look to Kenney to determine a method of fabricating a one-transistor floating-body DRAM cell as recited by Claim 3.

For these reasons, Claim 3 is not anticipated by Kenney. Claims 10 and 11, which depend from Claim 3, are not anticipated by Kenney for at least the same reasons as Claim 3.

In addition, Claim 11 recites "forming a deep well region having the first conductivity type in the semiconductor substrate, wherein the deep well region is located below and continuous with the buried region".

The Examiner indicates that region 32 of Kenney corresponds with a "buried region", and region 24 of Kenney corresponds with a "deep well region". However, region 24 of Kenney is not "located below" region 32 of Kenney. Kenney therefore does not teach "forming a deep well region ... located below ... the buried region" as recited by Claim

11. For this additional reason, Claim 11 is not anticipated by Kenney.

Claims 6 and 12 have been objected to as being dependent upon a rejected base claim. The Examiner has indicated that Claims 6 and 12 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Because the Applicant believes that independent Claim 3 is allowable for the reasons presented above, the Applicant is not amending Claims 6 and 12 at this time.

New Claims 13-23 have been added. Support for these new claims is found in the specification as originally filed at paragraph [0052] and in Figs. 6, 7A and 7B. No new matter is added.

CONCLUSION

Claims 3-23 are pending in the present application. Claims 6 and 12 are allowable. Reconsideration and allowance of Claims 3-5, 7-11 and 13-23 is respectfully requested. If the Examiner has any questions, he is invited to call the undersigned at (925) 895-3545.

Respectfully submitted,



Customer No. 022888

E. Eric Hoffman  
Reg. No. 38,186  
Attorney for Applicant  
BEVER, HOFFMAN & HARMS, LLP

Tel. No.: (925) 895-3545

Fax No.: (925) 371-8187

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Carrie Reddick  
Name

Carrie Reddick  
Signature: Carrie Reddick